CLAIMS:

5

10

15

20

25

30

- 1. An electric double layer capacitor comprising a pair of polarizable electrodes and an electrolyte;
- which electric double layer capacitor is characterized in that the polarizable electrodes are composed primarily of activated carbon having micropores with a pore radius distribution peak as determined by the MP method in a range of 5.0×10^{-10} to 1.0×10^{-9} m, and the electrolyte includes at least an ionic liquid in a concentration of more than 2.0 mol/L.
- 2. The electric double layer capacitor of claim 1 which is characterized in that the electrolyte is composed solely of the ionic liquid.
- 3. The electric double layer capacitor of claim 1 or 2 which is characterized in that the electrolyte includes two or more ionic liquids.
- 4. The electric double layer capacitor of any one of claims 1 to 3 which is characterized in that the ionic liquid is a quaternary ammonium salt or a quaternary phosphonium salt.
- 5. The electric double layer capacitor of any one of claims 1 to 4 which is characterized in that the ionic liquid has the following general formula (1)

[Chemical Formula 1]

$$\begin{bmatrix} R^1 \\ R^2 - X - R^3 \\ R^4 \end{bmatrix}^+ \cdot Y \qquad \cdots (1)$$

wherein R^1 to R^4 are each independently an alkyl group of 1 to 5 carbons or an alkoxyalkyl group of the formula $R'-O-(CH_2)_n-$ (R' being methyl or ethyl, and the letter n

being an integer from 1 to 4) and any two from among R^1 , R^2 , R^3 and R^4 may together form a ring, with the proviso that at least one of R^1 to R^4 is an alkoxyalkyl group of the above formula; X is a nitrogen atom or a phosphorus atom; and Y is a monovalent anion.

- 6. The electric double layer capacitor of any one of claims 1 to 5 which is characterized in that the ionic liquid has the following formula (2)
- 10 [Chemical Formula 2]

$$\begin{bmatrix} Me \\ Et \longrightarrow N \longrightarrow CH_2CH_2OMe \\ I \\ Et \end{bmatrix} \cdot BF_4 \longrightarrow \cdots (2)$$

wherein Me stands for methyl and Et stands for ethyl.

7. The electric double layer capacitor of any one of
claims 1 to 6, wherein the activated carbon is a chemically
activated product of at least one carbonized material
selected from among coal-based pitch, petroleum-based pitch,
coke and mesophase carbon.